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Michael A. DeSanctis			SHIN, KYUNG H	
756 HARRISON ST.			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/661,637	MATTHEWS, ABRAHAM R.	
	Examiner	Art Unit	
	Kyung H. Shin	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/31/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is responding to amendment on 6-20-2007.
2. **Claims 1 - 27** are pending. Claims **1, 3, 4, 6, 8, 9, 11, 13, 14, 16 - 18** have been amended. Claims **19 - 27** are new. Independent claims are **1, 6, 11, 19**.

Response to Arguments

3. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

3.1 Terminal Disclaimer has been filed as of 6-20-2007. Double Patenting Rejection has been withdrawn. (see remarks Page 11)

3.2 Amended Drawings have been file as of 6-20-2007. Objection to Drawings has been withdrawn. (see remarks Page 10)

3.3 The argument concerning the term, "application layer", was persuasive; the 112 rejection has been withdrawn. (see remarks Pages 10,11)

3.4 Applicant argues that the referenced prior art does not disclose, customized service to subscribers. (see Remarks Pages 12-16)

The Alles prior art is not used to reject the majority of the claim limitations mentioned on page 12. (see Remarks Pages 12-14) Furthermore, in response to an applicant's arguments against referenced prior art individually,

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one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

An obtained advantage is an acceptable reason for the obvious combination of prior art to one skilled in the art. The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

The service policies merely defined the rules utilized to control services such as e-mail provided to subscribers. A service policy cannot be delivered to any subscriber. Only a service such as e-mail, web services can be delivered to a subscriber. Policies define the rules utilized to control the data flows for services such as email, firewall, web hosting provided to subscribers. This is a customization of the services for a specific subscriber.

The Alles prior art discloses customized services (application layer services) to subscribers. The Alles prior art provides the following services: VOIP, streaming applications, HTTP services (web hosting), SMTP (mail services) TELNET (terminal services). (see Alles col. 7, lines 15-18; col. 9, lines 38-40:

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customization of services for subscribers; col. 6, lines 18-21; col. 12, lines 52-55; col. 12, lines 60-61: service, e-mail; col. 12, lines 52-55: HTTP service utilized, website hosting, web activities (see Remarks Page 11, Lines 7); col. 7, lines 52-58: service provided, firewall)

- 3.5 Applicant argues that the referenced prior art does not disclose, a ring configuration for a set of processors (see remarks Pages 16, 17); ring-network hardware platform (see Remarks Page 11).

Applicant is reminded that the term "network device" is not disclosed in the specification and is only stated in the original claims and appears to be an attached device for "a processing system". The disclosure for "network device" indicates that "network device" is part of a processing system. There is no disclosure within the specification or original claims that "the plurality of processors is within a network device such as a service-processing switch" as indicated in the remarks. (see Remarks Page 16) If Applicant feels there is disclosure for this claim limitation, please indicate the required citations for confirmation.

The Alles and Sarnikowski prior art combination discloses a ring configuration for a set of processors with the capability to provide services to subscribers. (see Alles col. 7, lines 15-18; col. 9, lines 38-40: customized services; col. 6, lines 18-21; col. 12, lines 52-55; col. 12, lines 60-61: service, e-mail; col. 12, lines 52-55: HTTP service utilized, website hosting, web activities (see Remarks Page 11, Lines 7); col. 7, lines 52-58: service provided,

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firewall) and (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors, fiber optic interconnections)

- 3.6 Applicant argues that the referenced prior art does not disclose, providing customized application layer services. (see Remarks Page 16)

The Alles prior art provides services that are tailored to each subscriber. The services provided by the Alles prior art are customized by the service policies for each subscriber (customized services). The services provided by are VOIP, streaming applications, web services (HTTP), e-mail (SMTP), and terminal (TELNET). (see Alles col. 3, lines 42-46; col. 7, lines 15-18; col. 9, lines 38-40: service modified based on subscriber; col. 12, lines 1-4; col. 12, lines 52-55; col. 6, lines 18-21; col. 12, lines 60-61: services (mail, web, telnet)) All of these services are application layer services.

- 3.7 Applicant argues dependent claims and the previous arguments for their base independent claims. (see Remarks Page 18,19)

These arguments were addressed in previous responses.

- 3.8 Applicant argues, the obviousness of the Garner reference. (see Remarks Page 29)

An obtained advantage is an acceptable reason for the obvious combination of prior art to one skilled in the art. The rejection to each independent and dependent claim includes a citation from the referenced prior art that discloses the basis for the rejection. Each obviousness combination clearly indicates the

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claim limitation the combined reference prior art teaches. In addition, a cited passage from the referenced prior art clearly indicates the motivation for the obviousness combination. Each obviousness combination's disclosure is equivalent to the Applicant's claimed invention.

3.9 No response can be given to remarks for **newly added claims 19-27**. (see Remarks Page 19-20)

3.10 The examiner has considered the applicant's remarks concerning a flexible system that allows a service provider to easily provide internet services, virtual private network services, firewall services or other security type services to a plurality of customers based on each customer individual changing needs. Applicant's arguments have thus been fully analyzed and considered but they are not persuasive.

After an additional analysis of the applicant's invention, remarks, and a search of the available prior art, it was determined that the current set of prior art consisting of **Alles (6,466,976)**, **Sarnikowski (6,453,406)**, **Rao (6,674,756)** and **Garner (6,243,580)** discloses the applicant's invention including disclosures in Remarks dated June 20, 2007.

Claim Rejection - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 6, 11, 13 - 24, 26, 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alles et al.** (U.S. Patent No. **6,466,976**) in view of **Sarnikowski et al.** (U.S. Patent No. **6,453,406**) and further in view of **Rao** (U.S. Patent No. **6,674,756**).

Regarding Claims 1, 6, 11, Alles discloses multiple processor utilizing a method and system of delivering security services. (see Alles col. 3, lines 24-28; col. 2, lines 37-43) Alles does not specifically disclose a ring configuration for multiple processors.

However, Sarnikowski discloses:

- a) connecting a plurality of processors in a ring configuration within a first network device at a first point-of-presence of a service provider network; (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors, fiber optic interconnections)

Alles does not specifically disclose a secure connection between two ring configurations. However, Rao discloses:

- b) establishing a secure connection between a second network device at a second point-of-presence of the service provider network and the first network device across an internet protocol (IP) connection to form a tunnel; (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: tunnel, secure communication path between two endpoints)

Alles discloses a method and system of delivering security services. (see Alles col. 2, lines 37-43; col. 7, lines 52-58: firewall services) Alles discloses services processing at OSI network layer and higher (i.e. application layer). (see Alles col. 4, lines 50-53) Alles does not specifically disclose processing at the application layer. Additionally, Alles does not specifically disclose a ring configuration for processors (a first network device, processing system) or two ring configurations (a first and second network device, processing system) connected by a tunnel (i.e. network path). However, Sarnikowski does disclose a ring configuration for connected processors, two ring configurations. And, Rao discloses services processing specifically at the application layer for a customer:

- c) routing messages from the second network device via the first network device (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors, fiber optic interconnections) providing [both router services and host] application layer (see Rao col. 21, lines 14-18: processing at the application layer) services for a customer using at least one processor selected from the plurality of processors in the first processing system's ring configuration and using the second processing system. (see Alles col. 2, lines 27-39; col. 3, lines 24-26; col. 2, lines 44-48). But, Sarnikowski does not specifically disclose service provider services (i.e. routing and hosting). However, Alles does disclose service provider services such as routing and hosting.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles as taught by Sarnikowski to enable the capability for a ring configuration for multiple processors, and to utilize application layer processing for the delivery of services utilizing a tunnel path as taught by Rao. One of ordinary skill in the art would be motivated to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections (see Sarnikowski col. 3, lines 35-41: “ ... *Further, the present invention permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections; that is, one style of processor unit can be coupled to another style of processor unit, for interprocessor communications, using the present invention without modifying both to achieve electrical compatibility on the intercommunication bus. ...* ”), and to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment (see Rao col. 2, lines 6-12: “ ... *fault-tolerant and efficient services that will accommodate the increase in the number and the variety of network traffic ... a private, secure environment for multiple sharing subscribers without the addition of a separate POP* ”).

Regarding Claim 13, Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not specifically disclose the

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usage of virtual routers in communications. However, Rao discloses the method and system of claim 11, wherein for each of a plurality of customers, a virtual router is formed in the first system and is operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27) Alles does not specifically disclose a ring-network hardware platform. However, Sarnikowski discloses a ring-network hardware platform. (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors (first or second ring))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for network communications as taught by Rao, and to modify Alles as taught by Sarnikowski to enable the capability for a ring configuration for multiple processors. One of ordinary skill in the art would be motivated to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment (see Rao col. 2, lines 6-12), and to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections (see Sarnikowski col. 3, lines 35-41).

Regarding Claim 14, Alles discloses the usage of routing in communications. Alles does not specifically disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 11, wherein for each of a plurality of customers, a virtual private network is formed using a virtual router formed in the first

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system and operably connected to a virtual router formed in the second system. (see Rao col. 2, lines 20-27; col. 2, lines 35-37: virtual router, virtual private network) Alles does not specifically disclose a ring-network hardware platform. However, Sarnikowski discloses a ring-network hardware platform. (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors (first or second ring), fiber optic interconnections)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for network communications as taught by Rao, and to modify Alles as taught by Sarnikowski to enable the capability for a ring configuration for multiple processors. One of ordinary skill in the art would be motivated to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment (see Rao col. 2, lines 6-12), and to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections (see Sarnikowski col. 3, lines 35-41).

Regarding Claim 15, Alles disclose a plurality of processors with rotating connections.

Alles does not disclose a ring configuration for processors. However, Sarnikowski discloses the method and system of claim 11, wherein the connecting a plurality of processors in a ring configuration. (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors, fiber optic

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interconnections)

It would have been obvious to one of ordinary skill in the art to modify Alles as taught by Sarnikowski to enable the capability for a ring configuration for multiple processors. One of ordinary skill in the art would have been motivated to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections. (see Sarnikowski col. 3, lines 35-41)

Regarding Claim 16, Alles discloses the system of claim 11, further comprising: a services management system that provides changeable provisioning of processor capacity among a plurality of customers. (see Alles col. 4, lines 3-6)

Regarding Claim 17, Alles discloses services processing at the OSI layers higher than the network layer (i.e. application layer). (see Alles col. 4, lines 50-53) Alles discloses firewall protection (see Alles col. 7, lines 52-61) for each of a plurality of customers. Alles does not specifically disclose processing of services at the application layer. However, Rao discloses the system of claim 11, further comprising a services management system that provides processing at the application layer (i.e. such as routing ... indicated by Applicant) processing). (see Rao col. 21, lines 14-18)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize application layer processing for services as taught by Rao. One of ordinary skill in the art would be motivated to employ the

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teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

Regarding Claim 18, Alles discloses the system of claim 11, further comprising a services management system that provides provisioning of processor capacity among a plurality of customers, wherein each customer's resources are isolated from those of all the other customers. (see Alles col. 3, lines 43-47; col. 3, lines 58-60)

Regarding Claim 19, Alles discloses a method comprising:

- a) providing a first service processing switch at a first point-of-presence (POP) associated with a first site of a first subscriber of a service provider and a first site of a second subscriber of the service provider; (see Alles col. 3, lines 42-46; col. 7, lines 15-18; col. 9, lines 38-40; service provider (first or second), switch, POP)
- b) providing a second service processing switch at a second POP associated with a second site of the first subscriber and a second site of the second subscriber, wherein the first service processing switch and the second service processing switch are communicatively coupled via a network; (see Alles col. 3, lines 42-46; col. 7, lines 15-18; col. 9, lines 38-40; service provider (first or second), switch, POP)
- g) providing the first subscriber with a first set of customized application layer services and the second subscriber with a second set of customized application layer services and providing subscriber resource isolation by (see Alles col. 9,

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lines 38-40; col. 6, lines 18-21; col. 12, lines 52-55; col. 12, lines 60-61: service, e-mail; col. 12, lines 52-55: HTTP service utilized, website hosting, web activities (see Remarks Page 11, Lines 7); col. 7, lines 52-58: service provided, firewall)

- j) providing changeable provisioning of processing capacity between the first subscriber and the second subscriber by programmatically dynamically reallocating resources of the first service processing switch or the second service processing switch between the first partition and the second partition based on comparative processing demands of the first set of customized application layer services and the second set of customized application layer services. (see Alles col. 8, lines 4-9; col. 8, lines 11-15; col. 8, lines 48-52: reallocate resources between subscribers, dynamically)

Alles does not specifically disclose a ring configuration for processors, and virtual router techniques.

However, Sarnikowski and Rao discloses:

- c) logically connecting a plurality of processors of the first service processing switch into a packet-passing ring configuration; (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: processor ring configuration)
- d) logically connecting a plurality of processors of the second service processing switch into a packet-passing ring configuration; (see Sarnikowski col. 3, lines 16-18; col. 4, lines 53-59; col. 5, lines 12-15: ring configuration for processors)

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- e) establishing a first set of virtual routers on the plurality of processors of the first service processing switch; (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: set of virtual routers (first, second set))
- f) establishing a second set of virtual routers on the plurality of processors of the second service processing switch; (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: set of virtual routers (first, second set))
- h) partitioning the first set of virtual routers and the second set of virtual routers between the first subscriber and the second subscriber including
 - (i) allocating and configuring a first partition, comprising a first subset of the first set of virtual routers and a first subset of the second set of virtual routers, to the first subscriber and
 - (ii) allocating and configuring a second partition, comprising a second subset of the first set of virtual routers and a second subset of the second set of virtual routers, to the second subscriber, (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: virtual routers utilized for communications between subscriber sites)
- i) providing the first subscriber with a first virtual private network (VPN) communicatively coupling the first site of the first subscriber with the second site of the first subscriber by establishing a first secure tunnel through the network between virtual routers of the first partition, and providing the second subscriber with a second virtual private network (VPN) communicatively coupling the first site of the second subscriber with the second site of the second subscriber by

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establishing a second secure tunnel through the network between virtual routers of the second partition; (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: VPN communications connection between subscriber sites (virtual LANs))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles as taught by Sarnikowski to enable the capability for a ring configuration for multiple processors, and to modify Alles to utilize virtual router techniques for network communications as taught by Rao. One of ordinary skill in the art would be motivated to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections (see Sarnikowski col. 3, lines 35-41), and to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment (see Rao col. 2, lines 6-12), and.

Regarding Claim 20, Alles discloses the method of claim 19, wherein the first set of customized application layer services comprises firewall protection. (see Alles col. 7, lines 52-58: service provided, firewall)

Regarding Claim 21, Alles discloses the method of claim 20, wherein the first set of customized application layer services comprises web site hosting. (see Alles col. 12,

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lines 52-55: HTTP service provided, website hosting, web activities (see Remarks Page 11, Lines 7))

Regarding Claim 22, Alles discloses the method of claim 20, wherein the first set of customized application layer services comprises e-mail services. (see Alles col. 6, lines 18-21; col. 12, lines 52-55; col. 12, lines 60-61: service provided, e-mail)

Regarding Claim 23, Alles discloses the method of claim 19. Alles does not specifically disclose a secure tunnel. However, Rao discloses wherein the first secure tunnel and the second secure tunnel are established by sharing a single secure tunnel between the first service processing switch and the second service processing switch. (see Rao col. 19, lines 47-52; col. 20, lines 4-15; col. 23, lines 50-55: virtual routers (VR), VPN communications between VRs, tunnel communications utilized)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques to utilize a secure tunnel for network communications as taught by Rao. One of ordinary skill in the art would be motivated to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

Regarding Claim 24, Alles discloses the method of claim 19, wherein in the providing changeable provisioning of processing capacity between the first subscriber and the

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second subscriber is controlled by a services management system of the service provider. (see Alles col. 8, lines 4-9; col. 8, lines 11-15; col. 8, lines 48-52: provisioning bandwidth (processing capacity) between subscribers, dynamic (changeable) provisioning utilized)

Regarding Claim 26, Alles discloses the method of claim 19. Alles does not specifically disclose a processor identifier. However, Sarnikowski discloses wherein packets exchanged between the first service processing switch and the second processing switch contain processor identifiers (PEIDs) that identify a processor of the plurality of processors of the first service processing switch or a processor of the plurality of processors of the second service processing switch to which the packets are destined. (see Sarnikowski col. 5, lines 37-40: identifiers for processors)

It would have been obvious to one of ordinary skill in the art to modify Alles as taught by Sarnikowski to enable a processor identifier. One of ordinary skill in the art would have been motivated to employ the teachings of Sarnikowski in order to enable the capability to permits mixing of different styles of processor units using interprocessor bus communications without concern for the electrical connections. (see Sarnikowski col. 3, lines 35-41)

Regarding Claim 27, Alles discloses the method of claim 26, wherein the packets contain logical queue identifiers (LQIDs) that identify a software entity to which the packets are destined within the identified processor. (see Alles col. 2, lines 48-51; col.

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13, lines 1-2; Abstract, lines 6-8: software identification, classifier, identify application data flow, application identifier)

6. **Claims 2 - 5, 7 - 10, 12, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alles-Sarnikowski-Rao** and further in view of **Garner** (U.S. Patent No. 6,243,580).

Regarding Claims 2, 7, 12, Alles discloses one or more processing processor. (see Alles col. 3, lines 24-28: initial processing by processing group (i.e. type)) Alles does not disclose one or more control processors or one or more access processors.

However, Garner discloses the method and system of claim 1, 6, 11, wherein, to support a communications network, the plurality of processors groups or types includes one or more control processors and one or more access processors. (see Garner col. 5, lines 27-30; col. 58, lines 36-40: control and access processors)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize one or more control processors and access processors in the processing of services as taught by Garner. One of ordinary skill in the art would be motivated to employ the teachings of Garner in order to provide expanded and updated features and services to subscribers. (see Garner col. 3, lines 63-67: "*... System Engineering ... subsystems, equipment and software which is needed to expand capacity to meet increases in traffic demands and to provide new features and services which become marketable to subscribers ...*")

Regarding Claims 3, 8, Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 2, 7, wherein for each of the plurality of customers, a virtual router is formed in the first network device and is operably connected to a virtual router formed in the second network device. (see Rao col. 2, lines 20-27: virtual router)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for communications as taught by Rao. One of ordinary skill in the art would be motivated to employ Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

Regarding Claims 4, 9, Alles discloses the usage of routing in communications. (see Alles col. 2, lines 21-25; col. 6, lines 52-57) Alles does not disclose the usage of virtual routers in communications. However, Rao discloses the method and system of claim 2, 7, 11, wherein for each of the plurality of customers, a virtual private network is formed using a virtual router formed in the first network device and operably connected to a virtual router formed in the second network device. (see Rao col. 2, lines 20-27; col. 2, lines 35-37: virtual router, virtual private network)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize virtual router techniques for

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communications as taught by Rao. One of ordinary skill in the art would be motivated to employ the teachings of Rao in order to provide strengthened services to accommodate increases in network traffic within a secure subscriber environment. (see Rao col. 2, lines 6-12)

Regarding Claims 5, 10, Alles discloses the method and system of claim 2, 7, 11, wherein the connecting a plurality of processors in the ring configuration includes forming dual counter rotating ring connections, each connecting to each of the plurality of processors. (see Alles col. 3, lines 30-33)

Regarding Claim 25, Alles discloses the method of claim 19. Alles does not disclose one or more control processors or one or more access processors. However, Garner discloses wherein the plurality of processors of the first service processing switch are associated with one or more control blades, one or more access blades, and one or more processing blades. (see Garner col. 5, lines 27-30; col. 58, lines 36-40: control and access processors, blade (IC board for processor, still a processor))

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alles to utilize one or more control processors and access processors in the processing of services as taught by Garner. One of ordinary skill in the art would be motivated to employ the teachings of Garner in order to provide expanded and updated features and services to subscribers. (see Garner col. 3, lines 63-67)

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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K H S
Kyung H Shin
Patent Examiner
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KHS
August 20, 2007


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